

REMARKS

The Examiner's Action mailed on August 23, 2005, has been received and its contents carefully considered. Additionally attached to this Amendment is a Petition for Two-month Extension of Time, extending the period for response to January 23, 2006.

In this Amendment, Applicant has canceled claims 1-11 and added claims 12-18. Claims 12 and 18 are the independent claims. Claims 12-18 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner has objected to claim 3 for an informality. Because claim 3 has been canceled, this objection has been rendered moot.

The Examiner has also rejected claim 1 as being anticipated by *Park et al.* and rejected claims 2-7 as being obvious over *Park et al.* in view of *Matsukawa*. Because these claims have all been canceled, Applicant will treat this rejection as pertaining to independent claim 12, and the claims dependent therefrom. It is submitted that these claims are *prima facie* patentably distinguishable over the cited references for at least the following reasons.

Applicant's claims are directed to the embodiment illustrated in Figures 1 and 3A-3H. A feature of this claimed embodiment is that each interconnecting line is formed in two separate dielectric films, with a lower part of each interconnecting line being formed in the lower dielectric film, and the upper part of each interconnecting line being formed in the upper dielectric film. Each

in one dielectric film, and another width in the other dielectric film. Moreover, the adjacent interconnecting lines are formed so that one interconnecting line is wide in the lower film and narrow in the upper film, while the adjacent interconnecting line is narrow in the lower film and wide in the upper film. This claimed invention has the advantages discussed in Applicant's specification, and is neither disclosed nor suggested by the cited references.

Park et al. teach forming interconnecting lines in a single dielectric layer 770, as shown in Figures 7, 8 and 10. However, this reference does not disclose or suggest forming each interconnecting line in two separate dielectric films, as recited by claim 12. Moreover, *Matsukawa* teaches forming an interconnecting line which has an upper part, a lower part and a middle part, with the middle parts of the interconnecting lines all having the same narrow width. In Figure 4, for example, the interconnecting line 2 has a narrow lower part, and a narrow middle part formed in the dielectric film 7, and a wide upper part formed in the dielectric film 14. Interconnecting line 3 has a wide lower part, and a narrow middle part formed in dielectric film 7 and a narrow upper part formed in dielectric film 14. Interconnecting line 20 has a narrow lower part and a narrow middle part formed in dielectric film 71 and a wide upper part formed in another (not explicitly indicated) dielectric film. Moreover, interconnecting line 30 has a wide lower part and a narrow middle part formed in dielectric film 71 and a narrow upper part formed in the non-indicated dielectric film. However, this structure is much more complex than the structure recited by claim 12, and would be much more

expensive to fabricate. In particular, three different photolithography masks would be required to define the upper, middle and lower parts of the interconnecting lines. In contrast, the structure in claim 12 would require only two masks. Thus, none of the cited references disclose or suggest an interconnecting line structure which comprises an upper part and a lower part formed in separate dielectric films but which make contact with each other, as recited by claim 12. As noted, *Park et al.* teaches forming the interconnecting lines in only one dielectric film.

Matsukawa teaches forming an upper part and a lower part which are formed in separate dielectric films, but which do not make contact with each other, since the upper part is separated from the lower part by the narrow middle parts. Thus, the references, either taken alone or in combination, do not render Applicant's independent claim 12 obvious.

Moreover, claim 14 is submitted to be further patentably distinguishable over the cited references, since *Park et al.* do not disclose or suggest interconnecting lines having one constant width in their upper parts and another constant width in their lower parts. Instead, the interconnecting lines shown by *Park et al.* have a continuously varying cross-section, which would reduce the cross-sectional area thereby increasing line resistance, as discussed in Applicant's Background of the Invention on page 2, lines 5-11.

Moreover, claim 17 is submitted to be further patentably distinguishable over the cited references in that *Matsukawa* does not disclose or suggest that the height of the upper part and the height of the lower part of the interconnecting

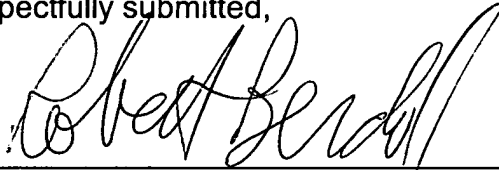
lines are equal to half the height of the interconnecting lines. As such, it is requested that these claims all be allowed and that these rejections be withdrawn.

It is submitted that this application is now in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of the application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Should the remittance be accidentally missing or insufficient, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,



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Date

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